

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A method for ~~providing~~ gaining a reference to a first service [[to]] by a second service in a computer system comprising:

enabling definition of a service connector interface in conjunction with said first service;

subsequently invoking said service connector interface in conjunction with said second service, wherein said subsequently invoking includes instantiating said service connector interface at said second service; and

gaining reference to said first service by said second service comprising the steps of:

retrieving a service instance at said service connector interface;

obtaining a service reference from said first service; and

returning said service reference obtained from said first service to said second service;

wherein said steps of subsequently invoking said service connector interface and gaining reference to said first service are carried out by an application program operative in conjunction with said second service and wherein the service connector has no prior information regarding the first service prior to the gaining reference step, the instantiating including reading a configuration file providing an indicator for said service connector interface.

Claim 2 (original): The method of claim 1 wherein said step of enabling definition of said service connector interface comprises the step of:

developing a computer program module adhering to said service connector interface in conjunction with said first service.

Claims 3 and 4 (canceled)

Claim 5 (original): The method of claim 1 further comprising the step of:
specifying a particular version of said first service that said second service desires to invoke.

Claim 6 (original): The method of claim 5 wherein a latest version of said first service is invoked if a particular version of said first service is not specified.

Claim 7 (original): The method of claim 1 further comprising the step of:
identifying a particular instance of said first service that said second service desires to invoke.

Claim 8 (original): The method of claim 7 wherein a latest instance of said first service is invoked if a particular instance of said first service is not specified.

Claim 9 (canceled)

Claim 10 (previously presented): A computer program product comprising:
a computer usable medium having computer readable code embodied therein for providing a reference to a first service in a distributed environment to a second service in a local environment in a computer system comprising:
computer readable program code devices configured to cause said computer system to effect enabling definition of a service connector interface in conjunction with said first service, the service connector interface encapsulating logic necessary to retrieve service instances in the distributed environment not in a directory service in the local environment;
computer readable program code devices configured to cause said computer system to effect subsequently invoking said service connector interface in conjunction with said second service; and
computer readable program code devices configured to cause said computer system to effect gaining reference to said first service by said second service, wherein said computer readable program code devices comprise:
computer readable program code devices configured to cause said computer system to effect retrieving a service instance at said service connector interface;

computer readable program code devices configured to cause said computer system to effect obtaining a service reference from said first service; and

computer readable program code devices configured to cause said computer system to effect returning said service reference obtained from said first service to said second service.

Claim 11 (original): The computer program product of claim 10 wherein said computer readable program code devices configured to cause said computer system to effect enabling definition of said service connector interface comprises:

computer readable program code devices configured to cause said computer system to effect allowing for developing a computer program module adhering to said service connector interface in conjunction with said first service.

Claim 12 (original): The computer program product of claim 10 wherein said computer readable program code devices configured to cause said computer system to effect subsequently invoking said service connector interface comprises:

computer readable program code devices configured to cause said computer system to effect instantiating said service connector at said second service.

Claim 13 (canceled)

Claim 14 (original): The computer program product of claim 10 further comprising:

computer readable program code devices configured to cause said computer system to effect specifying a particular version of said first service that said second service desires to invoke.

Claim 15 (original): The computer program product of claim 14 wherein a latest version of said first service is invoked if a particular version of said first service is not specified.

Claim 16 (original): The computer program product of claim 10 further comprising:

computer readable program code devices configured to cause said computer system to effect identifying a particular instance of said first service that said second service desires to invoke.

Claim 17 (original): The computer program product of claim 16 wherein a latest instance of said first service is invoked if a particular instance of said first service is not specified.

Claim 18 (original): The computer program product of claim 10 wherein said computer readable program code devices configured to cause said computer system to effect subsequently invoking said service connector interface and said computer readable program code devices configured to cause said computer system to effect gaining reference to said first service are carried out by an application program operative in conjunction with said second service.

Claim 19 (previously presented): A method for providing a reference to a first service to a second service in a computer system comprising:

- providing for enabling definition of a service connector interface in conjunction with said first service;

- providing for specifying a particular version of said first service that said second service desires to invoke;

- providing for subsequently invoking said service connector interface in conjunction with said second service; and

- providing for gaining reference to said first service by said second service.

Claim 20 (original): The method of claim 19 wherein said step of providing for enabling definition of said service connector interface comprises the step of:

- providing for developing a computer program module adhering to said service connector interface in conjunction with said first service.

Claim 21 (original): The method of claim 19 wherein said step of providing for subsequently invoking said service connector interface comprises the step of:

- providing for instantiating said service connector at said second service.

Claim 22 (original): The method of claim 19 wherein said step of providing for gaining reference to said first service by said second service comprises the steps of:

- providing for retrieving a service instance at said service connector interface;

providing for obtaining a service reference from said first service; and
providing for returning said service reference obtained from said first service to said second service.

Claim 23 (canceled)

Claim 24 (previously presented): The method of claim 19 wherein a latest version of said first service is invoked if a particular version of said first service is not specified.

Claim 25 (original): The method of claim 19 further comprising the step of:
providing for identifying a particular instance of said first service that said second service desires to invoke.

Claim 26 (original): The method of claim 25 wherein a latest instance of said first service is invoked if a particular instance of said first service is not specified.

Claim 27 (original): The method of claim 19 wherein said steps of providing for subsequently invoking said service connector interface and providing for gaining reference to said first service are carried out by an application program operative in conjunction with said second service.

Claim 28 (currently amended): A system for providing dynamic references between services in a computer system comprising:

means for enabling definition of a service connector interface in conjunction with said first service, said definition enabling means includes means for developing a computer program module adhering to said service connector interface in conjunction with said first service;

means for subsequently invoking said service connector interface in conjunction with said second service, wherein said means for subsequently invoking said service connector interface comprises means for instantiating said service connector at said second service; and

means for gaining reference to said first service by said second service[[]] , wherein said means for gaining reference to said first service by said second service comprises:

means for retrieving a service instance at said service connector interface;
means for obtaining a service reference from said first service; and
means for returning said service reference obtained from said first service to said
second service.

Claims 29-31 (canceled)

Claim 32 (original): The system of claim 28 further comprising:
means for specifying a particular version of said first service that said second service desires to invoke.

Claim 33 (original): The system of claim 32 wherein a latest version of said first service is invoked if a particular version of said first service is not specified.

Claim 34 (original): The system of claim 28 further comprising:
means for identifying a particular instance of said first service that said second service desires to invoke.

Claim 35 (original): The system of claim 34 wherein a latest instance of said first service is invoked if a particular instance of said first service is not specified.

Claim 36 (original): The system of claim 28 wherein said means for subsequently invoking said service connector interface and means for gaining reference to said first service are carried out by an application program operative in conjunction with said second service.

Claim 37 (previously presented): A core profile engine for use in gateway or firewall servers for enabling client applications to access plug-in service modules in a distributed computing environment without embedding location and negotiation logic within the client applications, the engine comprising:

an application programming interface in communication with the client applications and adapted with interfaces for processing a request for a service provided by one of the plug-in service modules, wherein the plug-in service modules are selected from a group consisting

of an authorization plug-in, an authentication plug-in, a notification plug-in, a log plug-in, a group plug-in, an entity identification factory plug-in, and a replication plug-in; and

a pluggable interface attaching to the plug-in service modules, wherein the attaching includes providing an initialization parameter comprising a storage location for each of the plug-in service modules;

wherein the pluggable interface further includes a service connector associated with each of the attached plug-in service modules that is adapted to receive the service request from the application programming interface and to return a reference to the one service module providing the service based on the storage location.

Claim 38 (canceled)

Claim 39 (previously presented): A computer-implemented method for providing an application with access to a service without the use of a directory service, comprising:

reading a configuration file with the application to determine an indicator to the service;

instantiating with the application a service connector for the service based on the indicator;

requesting with the application that the service connector provide access to the service, wherein the requesting includes an identification of a version of the service for which the application is requesting access;

first operating the service connector to lookup an instance of the service;

second operating the service connector to obtain a reference to the instance of the service;

third operating the service connector to return the reference to the instance of the service to the application;

operating the application to request identification of an interface implemented by the referenced service; and

operating the service connector to retrieve and return the interface identification to the application for use in utilizing the referenced service.

Claims 40-41 (canceled)